CLAIM LISTING

This listing of claims will replace all prior versions and listings of claims in the application. Please cancel claims 4, 17-24, and 38-91.

1. (Currently amended) A method for molding an ophthalmic lens comprising:
(a) providing a first mold part having a front curve molding surface for the ophthalmic lens;
(b) providing a second mold part having a back curve molding surface for the ophthalmic lens;
(c) depositing an amount of a melt-processable polymer in the first mold part wherein said polymer is in the form of a pellet and the pellet has a length (L) and a diameter (d) in a L/D ratio of between 0.1 and 10.0;
(d) pressing together the first mold part with the second mold part, the mold parts thereby forming a mold cavity between the opposing front curve molding surface and back curve molding surface with the polymer therebetween, the mold cavity defining a shape of an ophthalmic lens having a variable volume at least between a first volume and a second volume, the second volume being greater than the first volume, and the amount of polymer having a volume between the first volume and the second volume, wherein the mold parts have sufficiently small clearance such that gas escapes from the mold cavity and none of the polymer escapes from the mold cavity;
(e) allowing the polymer to solidify and form a lens;
(f) opening the mold; and
(g) removing the lens from the mold.

2. (Currently amended) A method for making a soft hydrogel ophthalmic lens comprising:
(a) providing a first mold part having a front curve molding surface for the ophthalmic lens;
(b) providing a second mold part having a back curve molding surface for the ophthalmic lens, the mold parts adapted to mate together to form a mold cavity in the shape of an ophthalmic lens having a variable volume at least between a first volume and a second volume, the second volume being greater than the first volume;
(c) extruding a melt-processable polymer, the polymer having a glass transition temperature (T_g), a flow temperature (T_F), and a degradation temperature (T_D);
(d) cutting a sample from the extruded polymer, the sample having a volume between the first volume and the second volume; wherein said sample is in the form of a pellet and the pellet has a length (L) and a diameter (d) in a L/D ratio of between 0.1 and 10.0;
(e) depositing the sample in the first mold part;
(f) moving the mold parts together to form a mold cavity with the back curve molding surface contacting the sample;

(g) squeezing the mold parts together with a predetermined force, wherein the mold parts have sufficiently small clearance such that gas escapes from the mold cavity and none of the sample escapes from the mold cavity;
(h) allowing the polymer to solidify and form a lens;
(i) opening the mold;
(j) removing the lens from the mold;
(k) hydrating the ophthalmic lens; and
(l) packaging the ophthalmic lens.

3. (original)The method for making an ophthalmic lens according to claim 2, wherein the extruded polymer is in the form of a wire.

4. (canceled)

5. (currently amended) The method for making an ophthalmic lens according to claim 1 **4**, wherein said ~~the pellet has a length (L) and a diameter (D) in a L/D~~ ratio ~~of between 0.1 and 10.0,~~ is preferably between 0.2 and 5.0, more preferably about 1.

6. (currently amended) The method for making an ophthalmic lens according to claim 2 **4**, wherein:
(a) the cutting comprises slicing the ~~wire~~ sample with a moving knife at an opening of the extrusion die through which the ~~wire~~ sample is extruded such that the pellet remains adjacent to the knife; and
(b) the depositing comprises moving the knife to a position proximate the first mold half, and pushing the pellet off the knife and into the first mold half.

7. (original) The method for making an ophthalmic lens according to claim 6, wherein the pellet is supported in a groove in the knife.

8. (original) The method for making an ophthalmic lens according to claim 6, wherein the pellet is supported in by a set of tabs in the knife.

9. (original) The method for making an ophthalmic lens according to claim 6, wherein the pellet is pushed off the knife with a means selected from an ejector pin, an air burst and a combination of these.

10. (original) The method for making an ophthalmic lens according to claim 6, wherein the knife is at a temperature between 120 °C below the T_g and T_D.

11. (original) The method for making an ophthalmic lens according to claim 6, wherein the knife has a leading edge that is chamfered.

12. (original) The method for making an ophthalmic lens according to claim 6, wherein the knife has a pinching length that is less than 5 times the diameter of the pellet, preferably less than the diameter of the pellet, more preferably less than half the diameter of the pellet.

13. (original) The method for making an ophthalmic lens according to claim 8, wherein the extrusion die has a pinching length that is less than 5 times the diameter of the pellet, preferably less than the diameter of the pellet, more preferably less than half the diameter of the pellet.

14. (original) The method for making an ophthalmic lens according to claim 2, wherein all the polymer in the sample is incorporated into the lens.

15. (original) The method for making an ophthalmic lens according to claim 2, wherein the mold parts are squeezed together and then opened in less than 10 minutes, preferably in less than 20 seconds.

16. (original) The method for making an ophthalmic lens according to claim 15, wherein the mold parts are independently at temperatures between 120 °C below the T_g and T_D, preferably between 50 °C below the T_g and 50 °C above T_F.

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25. (original) The method for making an ophthalmic lens according to claim 2, further comprising pumping the polymer from the extruder and to an extrusion die with a melt pump.

26. (original) The method for making an ophthalmic lens according to claim 25, wherein a closed-loop pressure feedback control system is coupled with the melt pump.

27. (original) The method for making an ophthalmic lens according to claim 2, wherein the first mold part is a female mold half, and the second mold part is a male mold half.

28. (original) The method for molding an ophthalmic lens according to claim 2, wherein the clearance between the mold parts is less than 250 microns, preferably less than 20 microns, more preferably between 5 and 15 microns.

29. (original) The method of molding an ophthalmic lens according to claim 2, wherein the polymer is hydrophilic.

30. (original) The method of molding an ophthalmic lens according to claim 2, wherein the polymer forms a hydrogel when hydrated.

31. (original) The method of molding an ophthalmic lens according to claim 2, wherein the polymer contains latent crosslinking groups.

32. (original) The method of molding an ophthalmic lens according to claim 31, wherein the temperature of the mold, the applied force, and the duration of the squeezing are sufficient to crosslink the polymer.

33. (original) The method of molding an ophthalmic lens according to claim 31, wherein the temperature of the mold is between 50 °C below the T_g and T_D.

34. (original) The method of molding an ophthalmic lens according to claim 31, wherein the temperature of the mold is greater than the temperature at which the polymer is extruded.

35. (original) The method of molding an ophthalmic lens according to claim 2, wherein the temperature of the mold is less than the temperature at which the polymer is extruded.

36. (original) The method for molding an ophthalmic lens according to claim 2, wherein the first volume is between 3 and 100 microliters.

37. (original) The method for molding an ophthalmic lens according to claim 2, wherein the second volume is between 3 and 200 microliters.

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